

**In the Specification:**

Please amend the specification as shown:

In the title: METHOD FOR ~~GENO~~GENOTYPING AND PATHOTYPING  
PSEUDOMONAS AERUGINOSA

Please delete the paragraphs on page 13, line 15 to page 19, line 29 and replace them with the following paragraphs:

In the following, those oligonucleotides or nucleic acid probe molecules are listed, which or whose modifications described below are suitable for genotyping and pathotyping of *Pseudomonas aeruginosa*.

GCGGAAACTTCCTGCACATGATGTT (SEQ ID NO: 1)  
GCGGAAACTTCCTCCACATGATGTT (SEQ ID NO: 2)  
AGCTCAGCAGACTGCTGACGAGG (SEQ ID NO: 3)  
AGCTCAGCAGACCGCTGACGAG (SEQ ID NO: 4)  
AAGAGGACGGCCGCCGGGTGACGCC (SEQ ID NO: 5)  
AAGAGGACGGCCGCCAGGTGACGCCG (SEQ ID NO: 6)  
GACAAGATGCGCCTCGACGACC (SEQ ID NO: 7)  
GACAAGATGCGTCTCGACGACCG (SEQ ID NO: 8)  
AGCCGACCTACGCGCCGGGCAG (SEQ ID NO: 9)  
CAGCCGACCTATGCGCCGGGCAG (SEQ ID NO: 10)  
CCGTTTGAACGGCTCATGGAGCA (SEQ ID NO: 11)  
GCCGTTTGAACGACTCATGGAGCA (SEQ ID NO: 12)  
TGGAGCAGCAAGTGTTCCCGGC (SEQ ID NO: 13)  
TGGAGCAGCAACTGTTCCCGGC (SEQ ID NO: 14)  
GAACAAGACCGGTTCCACCAACGG (SEQ ID NO: 15)  
AACAAGACCGGCTCCACCAACGG (SEQ ID NO: 16)  
GCGACCTGGGCCTGGTGATCCT (SEQ ID NO: 17)  
GCGACCTGGGACTGGTGATCCT (SEQ ID NO: 18)  
GCCGACCAACTGAACTCCAACCTCG (SEQ ID NO: 19)  
GTCGCTGAACGGCACCTACTTCA (SEQ ID NO: 20)

CAGCCTGCGGTCATGTCCTCGG (SEQ ID NO: 21)  
CGCCAGTTTGAGAACGGAGTCACC (SEQ ID NO: 22)  
GCGCGATCTTCTCCACTTCATCGG (SEQ ID NO: 23)  
GCCTCCGCGATTGAACATCGTGAT (SEQ ID NO: 24)  
GTAGCCGGAGTCGAGCGGAATCAT (SEQ ID NO: 25)  
GTGAGCATGGAATCGGCAGTCGTT (SEQ ID NO: 26)  
CGAGGAGTTTCGGACCCGCTTTGA (SEQ ID NO: 27)  
AATAGGACCGGCAGAACGGGCATT (SEQ ID NO: 28)  
GCGCCTTCTCCTCTTTGCAGATGT (SEQ ID NO: 29)  
CAGTATGGTACGGACACGAAGCGC (SEQ ID NO: 30)  
GCATCATTGCGCGTCACATCTGGT (SEQ ID NO: 31)  
TCTGAACTGCGGCTATCACCTGGA (SEQ ID NO: 32)  
AATTGATGGCTTCTCAGGCGCAGG (SEQ ID NO: 33)  
AGTCATGGGACTGAATACGGCGACT (SEQ ID NO: 34)  
TTCTCGGTGTCGAGGGATTCTCGG (SEQ ID NO: 35)  
TGGTAGCTCTCGACGTACTGGCTG (SEQ ID NO: 36)  
CCCGTTGCTCATAACCCGTTCTG (SEQ ID NO: 37)  
AGGGCATTCTCAGGTGGACTCAGG (SEQ ID NO: 38)  
ACCTGTGTCGCTGGAGGGTATGTT (SEQ ID NO: 39)  
AGCGTCCCTGACCAACCTCATCAG (SEQ ID NO: 40)  
CGCCAACAATTCGCCATTACAGCG (SEQ ID NO: 41)  
TCCAACAGGCAGGAGTACAGGGTG (SEQ ID NO: 42)  
CGCTGCACATACAGGTCCGTTCTC (SEQ ID NO: 43)  
AGCCCAGCAATTGCGTGTTTCTCCG (SEQ ID NO: 44)  
AGCCCAGCAACTGCGTGTTTCTCC (SEQ ID NO: 45)  
GCTGCTGGCGGCGGTGTGC (SEQ ID NO: 46)  
TGCTGCTGGCAGCGGTGTGCT (SEQ ID NO: 47)  
CAGAAAGCTCAGCAGACTGCTGACGAG (SEQ ID NO: 48)  
GAAAGCTCAGCAGACCGCTGACGAG (SEQ ID NO: 49)  
ACGGCCGCCGGGTGACGCC (SEQ ID NO: 50)  
ACGGCCGCCAGGTGACGCCG (SEQ ID NO: 51)  
GCCGACCTACGCGCCGGGC (SEQ ID NO: 52)  
AGCCGACCTATGCGCCGGGCA (SEQ ID NO: 53)

GTTCTGAACGGCTCATGGAGCAGCA (SEQ ID NO: 54)  
GTTCTGAACGACTCATGGAGCAGCAAG (SEQ ID NO: 55)  
CAGCCCAGTCAGGACGCGCA (SEQ ID NO: 56)  
AGTGACGTGCGTTTCAGCAGTCCC (SEQ ID NO: 57)  
GTGTCACGGCCCATGTCTAGCAGC (SEQ ID NO: 58)  
CGAAGTCTGAGGTGTGGACCCGC (SEQ ID NO: 59)  
CGCTGGAGGGTATGTTCCGCAAGG (SEQ ID NO: 60)  
CGTACTCAGCTTCTCCACCCAGCG (SEQ ID NO: 61)  
CCTGGACCTCTCCAAGGTTGCGCT (SEQ ID NO: 62)  
GCCATTCCGACGACCAAACAAGGC (SEQ ID NO: 63)

Besides, the use of oligonucleotide probes or their modifications described below, which are specific for the following nucleic acids, is also conceivable within the scope of the present invention:

GTCTCCCTGGAGCCTGCGAAAGTGGCTCGGTTGCGTAGCCGAC (SEQ ID NO: 64)

ATGTTGTATTTTTCTTGCGGTATGAAGATGGGTGGTTGGGTGCGATATAGGTACTTCTC  
TCTATTTTCTTTAATTGCTCTTATCTATGG (SEQ ID NO: 65)

GACCTCGACCCCCGAGGGCTTCATGGCGTGTCGCGAACTCGCATGGCAACAGGC  
(SEQ ID NO: 66)

TGGTCAGCCGAGTAACCGGCAGTTGTCGCCAGGTCTGGAGAATCCCGCCATTAGCTT  
GATTCGACGGAAGTATAGCGACTTTGGTCCAAGTCTGGCCCAG (SEQ ID NO: 67)

ATGGGCAAGAGAGTGGTTGTATTGCTATGGCTGCTATTCACATCAATGTCAGCCCACG  
CCATCGATAAAAAAGTCAA (SEQ ID NO: 68)

CGGCTCGGACATGGCCAATTGGGTCAGCAAGCAACGCGCCGGAGGCATGCCTGGGTT  
CGCCAGGGGGCGGTGCC (SEQ ID NO: 69)

G TTCCTGGAACGAGGGTGATGGCTGGGAATACGTGGAGGCGCCACAGCCG (SEQ ID NO: 70)

ATGTTTCGTACATGACAAGCGACTGCAGTACACCGTCAGGGTCGC (SEQ ID NO: 71)

The following oligonucleotide probes or their modifications described below are particularly suitable for specifically detecting SNPs in conserved genes of *Pseudomonas aeruginosa*:

oriC T-C_wt	GAAGCCCAGCAATTGCGTGTTTC ( <u>SEQ ID NO: 72</u> )
oriC T-C_mut_1	GAAGCCCAGCAACTGCGTGTTTC ( <u>SEQ ID NO: 73</u> )
oriC T-C_wt_1	AGCCCAGCAATTGCGTGTTTCTCCG ( <u>SEQ ID NO: 74</u> )
oriC T-C_mut_2	AGCCCAGCAACTGCGTGTTTCTCC ( <u>SEQ ID NO: 75</u> )
oprL T-C_wt_1	GGTGCTGCAGGGTGTTTCGCCGG ( <u>SEQ ID NO: 76</u> )
oprL T-C_mut_1	GGTGCTGCAGGGCGTTTCGCCGG ( <u>SEQ ID NO: 77</u> )
fliC a A-T_wt_1	CAAGATCGCCGCAGCGGTCAAC ( <u>SEQ ID NO: 78</u> )
fliC a A-T_mut_1	CAAGATCGCCGCTGCGGTCAAC ( <u>SEQ ID NO: 79</u> )
alkB2 G-A_wt_2	GCTGCTGGCGGCGGTGTGC ( <u>SEQ ID NO: 82</u> )
alkB2 G-A_mut_2	TGCTGCTGGCAGCGGTGTGCT ( <u>SEQ ID NO: 83</u> )
alkB2 A-G_wt_1	CCTCGCCCTGTTCCCACCGCTCTGG ( <u>SEQ ID NO: 84</u> )
alkB2 A-G_mut_1	CTCGCCCTGTTCCCGCCGCTCTGG ( <u>SEQ ID NO: 85</u> )
citS A-G_wt_1	TCGAGCAACTGGCAGAGAAATCCG ( <u>SEQ ID NO: 86</u> )
citS A-G_mut_1	CGAGCAACTGGCGGAGAAATCCG ( <u>SEQ ID NO: 87</u> )
citS G-C_wt_1	GCGGAAAACCTTCCTGCACATGATGTT ( <u>SEQ ID NO: 88</u> )
citS G-C_mut_1	GCGGAAAACCTTCCTCCACATGATGTT ( <u>SEQ ID NO: 89</u> )
oprI T-C_wt_1	AGCTCAGCAGACTGCTGACGAGG ( <u>SEQ ID NO: 90</u> )
oprI T-C_mut_1	AGCTCAGCAGACCGCTGACGAG ( <u>SEQ ID NO: 91</u> )
oprI T-C_wt_2	CAGAAAGCTCAGCAGACTGCTGACGAG ( <u>SEQ ID NO: 92</u> )
oprI T-C_mut_2	GAAAGCTCAGCAGACCGCTGACGAG ( <u>SEQ ID NO: 93</u> )
ampC_1 G-A_wt_2	ACGGCCGCCGGGTGACGCC ( <u>SEQ ID NO: 94</u> )
ampC_1 G-A_mut_2	ACGGCCGCCAGGTGACGCCG ( <u>SEQ ID NO: 95</u> )
ampC_2 C-T_wt	GACAAGATGCGCCTCGACGACC ( <u>SEQ ID NO: 96</u> )
ampC_2 C-T_mut_1	GACAAGATGCGTCTCGACGACCG ( <u>SEQ ID NO: 97</u> )
ampC_3 C-T_wt	AGCCGACCTACGCGCCGGGCAG ( <u>SEQ ID NO: 98</u> )

ampC_3 C-T_mut_1	CAGCCGACCTATGCGCCGGGCAG ( <u>SEQ ID NO: 99</u> )
ampC_3 C-T_wt_1	GCCGACCTACGCGCCGGGC ( <u>SEQ ID NO: 100</u> )
ampC_3 C-T_mut_2	AGCCGACCTATGCGCCGGGCA ( <u>SEQ ID NO: 101</u> )
ampC_4 G-A_wt_2	GTTCGAACGGCTCATGGAGCAGCA ( <u>SEQ ID NO: 102</u> )
ampC_4 G-A_mut_2	GTTCGAACGACTCATGGAGCAGCAAG ( <u>SEQ ID NO: 103</u> )
ampC_5 G-C_wt_1	TGGAGCAGCAAGTGTTCCCGGC ( <u>SEQ ID NO: 104</u> )
ampC_5 G-C_mut_1	TGGAGCAGCAACTGTTCCCGGC ( <u>SEQ ID NO: 105</u> )
ampC_6 T-C_wt	GAACAAGACCGGTTCCACCAACGG ( <u>SEQ ID NO: 106</u> )
ampC_6 T-C_mut_1	AACAAGACCGGCTCCACCAACGG ( <u>SEQ ID NO: 107</u> )
ampC_7 C-A_wt	GCGACCTGGGCCTGGTGATCCT ( <u>SEQ ID NO: 108</u> )
ampC_7 C-A_mut_1	GCGACCTGGGACTGGTGATCCT ( <u>SEQ ID NO: 109</u> )
oprL T-C_wt_2	GTGCTGCAGGGTGTTTCGCCG ( <u>SEQ ID NO: 110</u> )
oprL T-C_mut_2	GCTGCAGGGCGTTTCGCCG ( <u>SEQ ID NO: 111</u> )
oprI T-C_wt_3	GCTCAGCAGACTGCTGACGAGGCTAACG ( <u>SEQ ID NO: 112</u> )
oprI T-C_mut_3	GCTCAGCAGACCGCTGACGAGGCTAAC ( <u>SEQ ID NO: 113</u> )
ampC_3 C-T_wt_2	CGACCTACGCGCCGGGCAG ( <u>SEQ ID NO: 114</u> )
ampC_3 C-T_mut_3	CGACCTATGCGCCGGGCAGC ( <u>SEQ ID NO: 115</u> )
ampC_4 G-A_wt_3	CGTTCGAACGGCTCATGGAGCAG ( <u>SEQ ID NO: 116</u> )
ampC_4 G-A_mut_3	CGTTCGAACGACTCATGGAGCAGC ( <u>SEQ ID NO: 117</u> )
ampC_7 C-A_wt_1	CGACCTGGGCCTGGTGATCCT ( <u>SEQ ID NO: 118</u> )
ampC_7 C-A_mut_2	GCGACCTGGGACTGGTGATCCTGG ( <u>SEQ ID NO: 119</u> )

The following oligonucleotide probes or their modifications described below are particularly suitable for detecting DNA sequences not present in all *Pseudomonas aeruginosa* strains.

C-47-1	GCGCGATCTTCTCCACTTCATCGG ( <u>SEQ ID NO: 120</u> )
C-45	CGAGGAGTTTCGGACCCGCTTTGA ( <u>SEQ ID NO: 121</u> )
C-46	AATAGGACCGGCAGAACGGGCATT ( <u>SEQ ID NO: 122</u> )
C-46_1	CGAAGTCTGAGGTGTGGACCCGC ( <u>SEQ ID NO: 123</u> )
C-spezifisch-1	GCATCATTGCGCGTCACATCTGGT ( <u>SEQ ID NO: 124</u> )
pKL-3	TCTGAACTGCGGCTATCACCTGGA ( <u>SEQ ID NO: 125</u> )

pKL-11	AGTCATGGGACTGAATACGGCGACT <u>(SEQ ID NO: 126)</u>
PAGI-1-1	TTCTCGGTGTCGAGGGATTCTCGG <u>(SEQ ID NO: 127)</u>
PAGI-1-8	TGGTAGCTCTCGACGTACTGGCTG <u>(SEQ ID NO: 128)</u>
SG17M-1	CCCGTTGCTCATAACCCGTTCTG <u>(SEQ ID NO: 129)</u>
SG17M-4	AGGGCATTCTCAGGTGGACTCAGG <u>(SEQ ID NO: 130)</u>
C-Inselspez.-4	GCGCCTTCTCCTCTTTGCAGATGT <u>(SEQ ID NO: 131)</u>
C-Inselspez.-5	CAGTATGGTACGGACACGAAGCGC <u>(SEQ ID NO: 132)</u>
TB-C47-3	TCCAACAGGCAGGAGTACAGGGTG <u>(SEQ ID NO: 133)</u>
TB-C47-4	CGCTGCACATACAGGTCCGTTCTC <u>(SEQ ID NO: 134)</u>
fliC a A-T_wt_2	CAAGATCGCCGCAGCGGTCAACGAC <u>(SEQ ID NO: 135)</u>
fliC a A-T_mut_2	CAAGATCGCCGCTGCGGTCAACGAC <u>(SEQ ID NO: 136)</u>
PA2221	CAGTTGTCGCCAGGTCTGGAGAATCC <u>(SEQ ID NO: 137)</u>
PA3835	CACATCAATGTCAGCCCACGCCA <u>(SEQ ID NO: 138)</u>
PA0728	CTGGAGCCTGCGAAAGTGGCTC <u>(SEQ ID NO: 139)</u>
PA2185	ACGAGGGTGATGGCTGGGAATACG <u>(SEQ ID NO: 140)</u>
PA0636	GCCAATTGGGTCAGCAAGCAACG <u>(SEQ ID NO: 141)</u>
PA0722	CGTGTCGCGAACTCGCATGGC <u>(SEQ ID NO: 142)</u>
Pyov-Rez-Type_I	CCTGAATCCGACCATTGCGGAGTC <u>(SEQ ID NO: 143)</u>
Pyov-Rez-Type_IIa	TCGGACTGTACTCCTACGAAGCAGC <u>(SEQ ID NO: 144)</u>
Pyov-Rez-Type_IIb	CCAATCCCTATCGCTGGAACCGTACC <u>(SEQ ID NO: 145)</u>
Pyov-Rez-Type_III	GCTCGGGACTCGCATTTCGTCC <u>(SEQ ID NO: 146)</u>
Pyov-Rez-Fpv_B	GCGTTATTGCTCGGTCTCTCCTCG <u>(SEQ ID NO: 147)</u>
C-Inselspez.-1	GACCGCAAGCAGAAACGGCATGC <u>(SEQ ID NO: 148)</u>
C-Inselspez.-6	CCATGGTCGGAACAGGCACGATATGC <u>(SEQ ID NO: 149)</u>
C-47-1_2	CCACTCGATCATGTTGAGCATCGGCTCC <u>(SEQ ID NO: 150)</u>
SG17M-8	GGTTAGTCCCTTCTGCCCGCATCG <u>(SEQ ID NO: 151)</u>

The following oligonucleotide probes or their modifications described below are particularly suitable for detecting pathogenicity islets:

47D7-1_1	GTGTCACGGCCCATGTCTAGCAGC <u>(SEQ ID NO: 152)</u>
47D7-2	GTGAGCATGGAATCGGCAGTCGTT <u>(SEQ ID NO: 153)</u>
fla-insel-1	ACCTGTGTCGCTGGAGGGTATGTT <u>(SEQ ID NO: 154)</u>



fla-islet-2\_orfA CGCTGGAGGGTATGTTCCGCAAGG (SEQ ID NO: 155)  
 fla-islet-2\_orfC CGTACTCAGCTTCTCCACCCAGCG (SEQ ID NO: 156)  
 fla-islet-2\_orfI CCTGGACCTCTCCAAGGTTCGCCT (SEQ ID NO: 157)  
 fla-islet-2\_orfJ GCCATTCCGACGACCAAACAAGGC (SEQ ID NO: 158)  
 47D7-2\_2 AGGCCATGGGCTAGCCGGATGC (SEQ ID NO: 159)  
 PAPI-2-XF1753 CGAAGCGTAGGGTCTTCGTAGCC (SEQ ID NO: 160)  
 PAPI-2-acetyltrans TGCGAGGACCAGAAACCTTGATGG (SEQ ID NO: 161)  
 PA0980 CGGTATGAAGATGGGTGGTTGGGTCG (SEQ ID NO: 162)  
 LES TGCATAGGAGTCATGCCGACAGCA (SEQ ID NO: 163)  
 PKLC102-unbekannt GCCTGCCTACTTGTTCCTCAACGC (SEQ ID NO: 164)  
 PKLC102-adhesin GGCTGTATTGCCCCGCCATTCTCC (SEQ ID NO: 165)  
 PKLC102-stoffw CGACAGACAGAAAGGGTTCTTGCGC (SEQ ID NO: 166)  
 pKL-1 CACCATGCAAATGCTCGATGGACTGC (SEQ ID NO: 167)  
 TB-C47-3\_2 GCAGGCGTCCAAGTTGGAGCTCTCC (SEQ ID NO: 168)  
 PAPI-1\_pili-chap GGAACACAACGTGGGGCGTGAC (SEQ ID NO: 169)  
 PAPI-1\_lum\_bin\_pro CCAGTTGGCACCACCATGCTTGC (SEQ ID NO: 170)

The following nucleic acid probe molecules or their modifications described below are particularly suitable for detecting disease-associated genes like *exoS* and *exoU*:

exoS-1\_1 CAGCCCAGTCAGGACGCGCA (SEQ ID NO: 171)  
 exoU CGCCAGTTTGAGAACGGAGTCACC (SEQ ID NO: 172)  
 exoU\_1 AGTGACGTGCGTTTCAGCAGTCCC (SEQ ID NO: 173)

The following nucleic acid probe molecules or their modifications described below are particularly suitable for identifying the flagella type:

fliC b GCCGACCAACTGAACTCCAACCTCG (SEQ ID NO: 174)  
 fliC a GTCGCTGAACGGCACCTACTTCA (SEQ ID NO: 175)

Please delete the paragraphs on page 23, line 15 to page 37, line 20 and replace them with the following paragraphs:

In particular, the primers employed within the scope of the methods of the present invention have the amounts and sequences (all primers are listed in 5'to 3' direction) given in the following. However, the primers listed in the following are also suitable for any other methods known to the person skilled in the art for amplifying nucleic acids.

47-1/23

ACGCGGATGTCCTGGATTGG (SEQ ID NO: 176)

47-1/39

CTGAAGAAGGGGCGCTACGCG (SEQ ID NO: 177)

47-2/22

GCGTACCGGGCAAGGTGATAG (SEQ ID NO: 178)

47-2/52

CTCGGTGAAACATCGGGAGGG (SEQ ID NO: 179)

C45/18

TCATCCAGCAAGCCATTGCGC (SEQ ID NO: 180)

C45/60a

GGAGTCGCTTTCCGCCATCG (SEQ ID NO: 181)

C45/60b

TGGAGTCGCTTTCCGCCATCG (SEQ ID NO: 182)

C46/15

AAGGGCGTTTCACGCTGACGC (SEQ ID NO: 183)

C46/22

ATCCGGAAGGGCGTTTCACG (SEQ ID NO: 184)

C46/88

TCCACACCTCAGACTTCGGCG (SEQ ID NO: 185)



C47-1/43

TATTGACGACCTACCGCGCGC (SEQ ID NO: 186)

C47-2/56a

GCAACTGATGTTGCGCCAGC (SEQ ID NO: 187)

C47-2/56b

CGCAACTGATGTTGCGCCAGC (SEQ ID NO: 188)

C47-2/59

ACACGCAACTGATGTTGCGCC (SEQ ID NO: 189)

CIS-4/36

TGTCCCGGCTCAGTTCAACG (SEQ ID NO: 190)

CIS-4/50

AACACCTTGGCGTTTGTCCC (SEQ ID NO: 191)

CIS-4/51

GCAACACCTTGGCGTTTGTCC (SEQ ID NO: 192)

CIS-5/4

TCAAGCTCGTTGTGGACCGC (SEQ ID NO: 193)

CIS-5/48

GTTACGACGGCGTGCTGTCGG (SEQ ID NO: 194)

CSP-1/39a

ACGCAACGTATTCGGCGACCC (SEQ ID NO: 195)

CSP-1/39b

CGCAACGTATTCGGCGACCC (SEQ ID NO: 196)

fliAT/28

AGCTGATGGTATCGCCGTCGC (SEQ ID NO: 197)

fliAT/72

CTAGTGATCGCACCGGAGCC (SEQ ID NO: 198)

oriC/20

AGCCTCGACACCGGTTCTCG (SEQ ID NO: 199)

oriC/54

TCGTTCATCCCCAGGCTTCG (SEQ ID NO: 200)

oriC/59

ACCATCTCGTTCATCCCCAGG (SEQ ID NO: 201)

oprL/53

TTCTGAGCCCAGGACTGCTCG (SEQ ID NO: 202)

oprL/65

TCGACGCGACGGTTCTGAGCC (SEQ ID NO: 203)

fliCb/36

TGACGTTCTCGCCGGTAGCG (SEQ ID NO: 204)

fliCb/65

CAGTAGCGGTACCGGTCTGCG (SEQ ID NO: 205)

fliCb/66

CAGTAGCGGTACCGGTCTGC (SEQ ID NO: 206)

alkAG/27

TTCCTCGCCGGCATAGTAGGC (SEQ ID NO: 207)

alkGA/32

GGGGTCGAGACGTGTACATGG (SEQ ID NO: 208)

alkGA/51

CGAGGACGAGGCATCTTCCGG (SEQ ID NO: 209)

citAG/4

GCAGGTAGCAGGTTTCCAGG (SEQ ID NO: 210)

citAG/46

AACTG TTCCTTCTGCGCGGCG (SEQ ID NO: 211)

citGC/8

TGATCGGCTTGGTCTCGCAGG (SEQ ID NO: 212)

citGC/11

GCTGATCGGCTTGGTCTCGC (SEQ ID NO: 213)

citGC/75

GAGGCGTTCTGCTCGTGGTCG (SEQ ID NO: 214)

oprI/12

TTTTTCCAGCATGCGCAGGG (SEQ ID NO: 215)

oprI/17

GCTGGCTTTTTCCAGCATGCG (SEQ ID NO: 216)

oprI/22

TTGCGGCTGGCTTTTTCCAGC (SEQ ID NO: 217)

am7CA/1

TTGGGATAGTTGCGGTTGGC (SEQ ID NO: 218)

am7CA/27

CGTAGGCGATCTTCACCCGC (SEQ ID NO: 219)

am7CA/29

TGGCGTAGGCGATCTTCACCC (SEQ ID NO: 220)

am3CT/21

GGCGAGATAGCCGAACAGGC (SEQ ID NO: 221)

am3CT/22

GCGGCGAGATAGCCGAACAGG (SEQ ID NO: 222)

am3CT/69

CACTTGCTGCTCCATGAGCC (SEQ ID NO: 223)

am2CT/35

GAGGTCGAGCAGGCTGATGC (SEQ ID NO: 224)

am2CT/42

TAGGTCGCGAGGTCGAGCAGG (SEQ ID NO: 225)

am2CT/92

GTCCTTCTGCACCGAGTCGG (SEQ ID NO: 226)

am1GA/49

CGCATCTTGTCTGGGTCAGG (SEQ ID NO: 227)

am1GA/58

TCGTCGAGGCGCATCTTGTCC (SEQ ID NO: 228)

am45/1

ACGTCGAGGTGGGTCTGTTCG (SEQ ID NO: 229)

am45/96

GTAGCCTTCGGCATCCAGCG (SEQ ID NO: 230)

am6TC/60

TCGGCATTGGGATAGTTGCGG (SEQ ID NO: 231)

GI11/15

CCTCCTGTCTCATGCCGATGC (SEQ ID NO: 232)

GI11/59

GCATTGCCACGGAAGGAAGG (SEQ ID NO: 233)

GI11/71

GAAGGCATCATGGCATTGCC (SEQ ID NO: 234)

GI18/62

GTCATGGGGTTTCCCAGAGACC (SEQ ID NO: 235)

fliCa/41

GATCGCGATGTCGACGGTGCC (SEQ ID NO: 236)

fliCa/42

CGATCGCGATGTCGACGGTGC (SEQ ID NO: 237)

fliCa/46

TGCCGATCGCGATGTCGACG (SEQ ID NO: 238)

SG-1/40

GACGAATACCCAGCTGCGTGG (SEQ ID NO: 239)

SG-1/43

GCAGACGAATACCCAGCTGCG (SEQ ID NO: 240)

SG-4/1

CGCGACGTCGTGACGTCAGC (SEQ ID NO: 241)

SG-4/67

ACTTTCGGCTCTTCGGGCTGG (SEQ ID NO: 242)

TB46/21

AGGTAGAGACTCGGGGGAACC (SEQ ID NO: 243)

TB46/45

TCGTTTTCGGTCATGGCCAGG (SEQ ID NO: 244)

TB471/22

TTCCGCGACGAACATCCGTGG (SEQ ID NO: 245)

TB471/25

CGCTTCCGCGACGAACATCCG (SEQ ID NO: 246)

TB472/36

GGATCGCTTCCGATAGGGCAGC (SEQ ID NO: 247)

TB472/84

AGAGGCATGGGTCTGTACCG (SEQ ID NO: 248)

TB473/34

TCTGTCAATCCCCTTTGGGG (SEQ ID NO: 249)

TB473/41

AGCCCCTTTCTGTCAATCCCC (SEQ ID NO: 250)

TB474/36

GGCTTCCTACCGAAGGTCAGG (SEQ ID NO: 251)

TB474/41

TGAGGGCTTCCTACCGAAGG (SEQ ID NO: 252)

exoS/31

TTCAAGGTCATGGGCAATGCC (SEQ ID NO: 253)

exoS/37

AGTCCCTTCAAGGTCATGGGC (SEQ ID NO: 254)

exoU/22

GCCGACTGAGCTGTAGCTCGG (SEQ ID NO: 255)

exoU/23

GGCCGACTGAGCTGTAGCTCG (SEQ ID NO: 256)

exoU/42

ACCAGACTGGTCAATGGTGG (SEQ ID NO: 257)

flins/2

CCCGTGTTTCCGTAGACCTTGC (SEQ ID NO: 258)

pKL11/49a

AGCAGTTACCCACAGCATGG (SEQ ID NO: 259)

pKL11/49b

CAGCAGTTACCCACAGCATGG (SEQ ID NO: 260)

pKL3/47

CTACACTCCAACCGCTGGTCC (SEQ ID NO: 261)

pKL3/50

GACCTACACTCCAACCGCTGG (SEQ ID NO: 262)

pKL3/80

TTCCCTTGCTGCCGAGAAGC (SEQ ID NO: 263)

pKL7/14

TAATAGGCGAGCCTGCCGTCC (SEQ ID NO: 264)



47D7nw1a

TCCACGCCGAGGGACGTGCC (SEQ ID NO: 265)

47D7nw1b

GCTCCACGCCGAGGGACGTGCC (SEQ ID NO: 266)

C46-nw1a

CGCGGTGCTGGTTGCGCTGC (SEQ ID NO: 267)

C46-nw1b

CCAATGCCCAGGGCCAGCGGA (SEQ ID NO: 268)

C46-nw1c

CGCTGGCAGTTCCGCTGGCC (SEQ ID NO: 269)

ExoSnw1a

CAGGGTCGCCAGCTCGCTCGCC (SEQ ID NO: 270)

ExoSnw1b

AGGGTCGCCAGCTCGCTCGC (SEQ ID NO: 271)

ExoUnw1a

AGTGATCTGCCGCGGCCCTGCC (SEQ ID NO: 272)

ExoUnw1b

GTGATCTGCCGCGGCCCTGC (SEQ ID NO: 273)

OrfA-1

GTTCCACAGGCGCTGCGGCGC (SEQ ID NO: 274)

OrfA-2

GTTCCACAGGCGCTGCGGCG (SEQ ID NO: 275)

OrfA-3

CAAAGCCCCTGGTCGCGCGG (SEQ ID NO: 276)

OrfC-1

GCAGCTTTTCCACCGCCGGCGG (SEQ ID NO: 277)

OrfI-1

AAACTGCCCCGCCCCCATCC (SEQ ID NO: 278)

OrfI-2

GGAAAACTGCCCCGCCCCC (SEQ ID NO: 279)

OrfJ-1

ACGCTCGCAGCGCCTCACGCG (SEQ ID NO: 280)

OrfJ-2

GGCCTGGCTGCGAACGCTCGC (SEQ ID NO: 281)

PA2221/37\_Pa-P\_064

TTCCTGGGCCAGAGTTGGACC (SEQ ID NO: 282)

PA2221/66\_Pa-P\_065

AGCTTAAGGCCGTGGCACTCG (SEQ ID NO: 283)

PA3835/46\_Pa-P\_066

CCGGAGAATTCGCGTCCACC (SEQ ID NO: 284)

PA3835/72\_Pa-P\_067

TGCTGACGATGAAGCCCCAGC (SEQ ID NO: 285)

47-22/3\_Pa-P\_072

AGGAGGCCGATGACAACACCC (SEQ ID NO: 286)

47-22/67\_Pa-P\_073

TGCCGATTCCATGCTCACGCC (SEQ ID NO: 287)

pl2X1753/29\_PaP\_074

ACGACGTCACCGTCGAGACCG (SEQ ID NO: 288)

pl2X1753/69\_PaP\_075

ACCGCCTTTCTGGTGAGCTGG (SEQ ID NO: 289)

PA0728/42\_PaP\_076

AGCCAAGACGGTTGTTGCGCGG (SEQ ID NO: 290)

PA0728/88\_PaP\_077

TCAATGACGCCGAGTTGGCGC (SEQ ID NO: 291)

PA2185-1/42\_Pa-P\_078

CTCGGACAGGTTACGCTGG (SEQ ID NO: 292)

PA2185-1/70\_Pa-P\_079

GCCATTCGCTGCAACACCTCC (SEQ ID NO: 293)

pl2actrf/39\_Pa-P\_085

GCGCGCGTTCGAGAAACAGG (SEQ ID NO: 294)

pl2actrf/93\_Pa-P\_086

CGGAGGTTGAAAAGCTGGCCC (SEQ ID NO: 295)

PA0636/29\_PaP\_087

ATGCCATCGTTGAAGGCACCGC (SEQ ID NO: 296)

PA0636/30\_PaP\_088

TGCCATCGTTGAAGGCACCG (SEQ ID NO: 297)

PA0722/4\_PaP\_089

TCTGGCGGAATCAGGTAGGCC (SEQ ID NO: 298)

PA0722/55\_Pa-P\_090

CTTCCGGGGAGAAACCACCG (SEQ ID NO: 299)

PA0980/45\_Pa-P\_093

ACCTCCAGCACCGACACACC (SEQ ID NO: 300)

PA0980/53\_Pa-P\_094

ATCCGATCCACCTCCAGCACC (SEQ ID NO: 301)

Fpval/23\_Pa-P\_095

CGTTCAGGTCGTAGACCGCGC (SEQ ID NO: 302)

Fpval/84\_Pa-P\_096

GCGATACCAACTGTCCTGCGGC (SEQ ID NO: 303)

Fpvalla/34\_Pa-P\_097

TGCCGAAGGTGAATGGCTTGCC (SEQ ID NO: 304)

Fpvalla/65\_Pa-P\_098

CCTGATGGTCCGATCCCAGC (SEQ ID NO: 305)

Fpvallb/44\_Pa-P\_099

GCCGAGGGTCAAGAACCACTGG (SEQ ID NO: 306)

Fpvallb/67\_Pa-P\_100

TCTTGGCCCAGTCATAGCGGC (SEQ ID NO: 307)

Fpvalll/16\_Pa-P\_101

TAACCCCAAGGCCCATTTGGAGG (SEQ ID NO: 308)

Fpvalll/31\_Pa-P\_102

GCCACCGCCTTCGAATAACCCC (SEQ ID NO: 309)

FpvB/57\_Pa-P\_103

AATTGCTCGAGGGATGCGGC (SEQ ID NO: 310)

FpvB/92\_Pa-P\_104

GGTCGAAACGGATGCGCAGG (SEQ ID NO: 311)

LES/11\_Pa-P\_105

GCCCCGCGTCATTTTCACGTCG (SEQ ID NO: 312)

LES/57\_Pa-P\_106

AATGCTCTGGGCAACGAGCC (SEQ ID NO: 313)

pKLunbek/63\_Pa-P\_107

CTACCCAGCTTGGGCGTAGC (SEQ ID NO: 314)

pKLunbek/141\_Pa-P\_108

AAGCGATAGCCGTGCTCCTGC (SEQ ID NO: 315)

pKLadh/13\_Pa-P\_109

CCGGCTATATCCGCGGCTACC (SEQ ID NO: 316)

pKLadh/59\_Pa-P\_110

ATTGGCGCTGCTGTTTACGCCC (SEQ ID NO: 317)

pKLstw/30\_Pa-P\_111

GGTGGCGTCGGGTTTTTCTGC (SEQ ID NO: 318)

pKLstw/46\_Pa-P\_112

AGGTCGTAGCGGAAGGTGGTGG (SEQ ID NO: 319)

pKL-1/22\_Pa-P\_113

ATCTGAACCGAGGGGATCCGC (SEQ ID NO: 320)

pKL-1/61\_Pa-P\_114

CCCGGGAGTCATTGGTCTGG (SEQ ID NO: 321)

T47-32/19\_Pa-P\_117

GCCTGTTGGACCCCTTTGACC (SEQ ID NO: 322)

T47-32/26\_Pa-P\_118

TACTCCTGCCTGTTGGACCCC (SEQ ID NO: 323)

pl1pil/15\_Pa-P\_121

CGCTCAAGCGCTATCCCACC (SEQ ID NO: 324)

pl1pil/41\_Pa-P\_122

CGCCATCGGCCTGTACAACG (SEQ ID NO: 325)

pl1lumin/87\_Pa-P\_123

CGGTAGAGAGCTGGGTTGGC (SEQ ID NO: 326)

pl1lumin/209\_Pa-P\_124

AACCTGGAGCTAGGGCAGAGC (SEQ ID NO: 327)

C-Ins1/39\_Pa-P\_125

GGTGCTCGACCCAAGCATCG (SEQ ID NO: 328)

C-Ins1/57\_Pa-P\_126

TCCTTGAGTTCCTTGGCGCGG (SEQ ID NO: 329)

C-Ins6/42\_Pa-P\_131

CAACACGCGACTGGCGATCC (SEQ ID NO: 330)

C-Ins6/61\_Pa-P\_132

TACATCATCCGCAACGGCGGC (SEQ ID NO: 331)

C47-12/2\_Pa-P\_137

TATTGACGACCTACCGCGCGCC (SEQ ID NO: 332)

C47-12/94\_Pa-P\_138

CACCAAGAACCCGCTGCTCG (SEQ ID NO: 333)

SG-8/14\_Pa-P\_141

ATCGTGGCAGGATGTCCACCG (SEQ ID NO: 334)

SG-8/86\_Pa-P\_142

TAGGCGGGCCTTTTGAAGGTGC (SEQ ID NO: 335)

Please delete the paragraphs on page 46, lines 9-13 and replace them with the following paragraphs:

Figure 17 shows the nucleotide sequences of the primers used in the Example (SEQ ID NOS 176-207 and 209-281, respectively, in order of appearance).

Oligonucleotide probes according to the present invention as well as the layout of the oligonucleotide probes on the nucleic acid chip according to the present invention are shown in the Figures 18 to 21. Figure 18 discloses SEQ ID NOS 72-73, 76-81, 84-91 and 5-63, respectively, in order of appearance. Figure 19 discloses SEQ ID NOS 72-79, 82-109, 174-175, 171-173, 120, 152-153, 121-123, 131-132, 124-128, 37-38, 154, 133-134 and 155-158, respectively, in order of appearance.